AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1-11. (Canceled)

12. (New) A barrel assembly comprising:

a barrel comprising a plurality of external chambers containing respective propellant charges;

a plurality of projectiles stacked nose to tail within the barrel and comprising respective expansion spaces for propellant gases;

wherein each projectile has a corresponding external chamber and an expansion space, and

wherein each chamber comprises a port that conveys propellant gas from the chamber into the expansion space for propulsion of the respective projectile; and

a control system configured to ignite the propellant charges to create the propellant gases and propel the projectiles sequentially from the barrel.

13. (New) An assembly according to claim 12, wherein each projectile has a tail structure that determines the respective expansion space in conjunction with the respective trailing projectile.

14. (New) An assembly according to claim 13, wherein the tail structure is a trailing sleeve that interacts with the projectile to form a seal with the barrel against passage of propellant gases.

15. (New) An assembly according to claim 13, wherein the tail structure comprises a passage aligned with the port of a respective external chamber for flow of propellant gas from the external chamber into the respective expansion space.

16. (New) An assembly according to claim 12, wherein each external chamber is a relatively high pressure chamber for detonation of the propellant charge and the expansion space is a relatively low pressure chamber into which propellant gases flow following detonation.

17. (New) A barrel for a barrel assembly, comprising:

a plurality of external propellant chambers located along the barrel,

wherein each chamber comprises propellant ignition means and a port into the barrel for exit of propellant gases,

wherein in use, the barrel is stacked with projectiles in nose to tail arrangement,

wherein each projectile comprises a respective external chamber loaded with a propellant charge and a corresponding expansion space for gases within the barrel, and

wherein the projectiles are fired from the barrel sequentially by ignition of the propellant charges.

18. (New) A barrel according to claim 17, wherein each external chamber is a relatively high pressure chamber for detonation of the respective propellant charge and the corresponding expansion space is a relatively low pressure chamber that receives gases from the external chamber.

19. (New) A projectile for a barrel assembly, comprising:

a housing; and

a nose part and a tail part;

wherein the projectile is adapted for stacking in a barrel in nose to tail arrangement with other projectiles, and

wherein the tail part defines an expansion space for propellant gases received from a propellant chamber that is external to the barrel.

20. (New) A projectile as in claim 19, wherein the tail part comprises an entry port for passage of the propellant gases from the external chamber into the expansion space.

21. (New) A projectile as in claim 20, wherein the entry port is adapted for alignment with an exit port of the external chamber.

22. (New) A projectile as in claim 19, wherein the tail part defines the expansion space in conjunction with the nose part of a respective trailing projectile.

23. (New) A firing system for an assembly, comprising:

a barrel with a stack of projectiles, the barrel comprising:

propellant charges arranged externally of the barrel for propelling respective projectiles sequentially from the barrel,

propellant igniters arranged for initiating combustion of the propellant charges,

expansion spaces between the projectiles to receive products of the combustion of the propellant charges, and

ports in the barrel for conveying the combustion products from the propellant charges into the expansion spaces.

24. (New) A system according to claim 23, wherein the expansion spaces are determined by trailing sleeves on the projectiles.